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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,863	01/28/2002	Scott R. Brown	ATA-5	3628

7590 03/07/2006
SQUARE D COMPANY
1415 South Roselle Road
Palatine, IL 60067

EXAMINER

DEBERADINIS, ROBERT L

ART UNIT PAPER NUMBER

2836

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/058,863

Applicant(s)

BROWN ET AL.

Examiner

Robert DeBeradinis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 21-24 is/are rejected.
- 7) ☒ Claim(s) 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The reply filed 12/23/05 consists of remarks related to rejection of claims.

Response to Arguments

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Turner and the applicant are concerned with the same problem of providing a method for controlling a device during a power variation using the obvious well known dc component formed when a voltage is rectified. The applicant is claiming a micro-controller for monitoring and providing an output signal to control the switch, Turner uses discrete components to control the switch. The applicant argues that "Shuey's control circuit requires a significant number of calculations to determine the DC components in an AC waveform and would be difficult to do using only electronic components. Therefore, there is no suggestion in either Turner or Shuey for one skilled in the art to replace Turner's control circuit with a microprocessor". The motivation the Examiner is relying on to combine the references is based on the knowledge that one of ordinary skill in the art would have. As stated above the dc component of a rectified wave is well known in the art and is

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calculated by well known mathematical relations related to amplitude, frequency, integration over time etc.

The applicant argues that a "nonzero average value is not a constant average current". If a current has an average value why is it not a nonzero average value?

Applicant's arguments filed 12/23/05 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 7, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over TURNER 5,734,543 in view of SHUEY 4,500,837.

Regarding claims 1, 4, 7, 10, 21, 23, 24.

TURNER discloses a circuit providing constant average current (col.5, lines 50-53), said circuit comprising: a full-wave bridge rectifier providing a rectified DC power output, an output switch operating in response to said output signal for selectively providing said rectified DC power at a constant average current to an electrical device connected electrically in series with said full-wave bridge rectifier and said switch (36).

TURNER does not disclose a micro-controller.

SHUEY teaches the use of a micro-controller for determining the DC content in an AC waveform (abstract).

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify the control circuit providing constant average current by providing a microprocessor to provide the control. The motivation would be for the flexibility in setting and adjusting system parameters (col. 6, lines 58-65).

Regarding claims 2, 8, 22.

SHUEY teaches wherein said monitored component of the rectified DC voltage is the voltage (abstract).

Regarding claims 3, 9.

SHUEY teaches wherein said monitored component is evaluated with respect to a set point measured on volt-seconds (abstract).

Regarding claims 5, 6, 11, 12.

TURNER in view of SHUEY disclose the circuit of claim 1. SHUEY teaches wherein said monitoring, evaluating and providing said output signal are concurrent operations initiated by a trigger (column 4).

Regarding claim 13.

TURNER in view of SHUEY disclose the voltage sag compensation circuit of claim 12 wherein said set point is determined by said trigger period and a particular electric current level required to maintain said electrical device in a desired operating condition.

Regarding claim 14.

TURNER in view of SHUEY disclose the voltage sag compensation circuit of claim 7 wherein said micro-controller continuously evaluates said monitored component with respect to a dropout set point (SHUEY col. 4, lines 46 plus, "undervoltage").

Allowable Subject Matter

Claims 15-17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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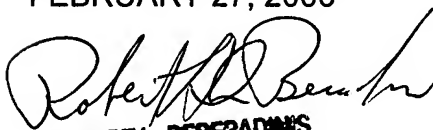
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (571) 272-2049. The Examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Brian Sircus, can be reached on (571) 272-2058. The Fax phone number for this Group is (703) 872-9306.

RLD

FEBRUARY 27, 2006


ROBERT L. DEBERADINIS
PRIMARY EXAMINER